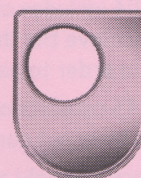


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Stop Press
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The Open University

MU120 Open mathematics October 2009 Stop Press 4

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1 Essential course information

(i) Errata

Apologies for the inconvenience caused by these errata. Note that a negative line reference indicates counting from the bottom of the page.

Unit 10

page 28 t scale in figure 11 is incorrect – from the bottom, the scale should read 0, 0.5, 1, 1.5

Unit 13

page 74 Solution to Activity 7(b) and 7(c)

An alternative approach is:

(b) Compare the lengths of the sides of the dishes which gives a scale factor of $\frac{150}{120} = 1.25$. The top surface area will be scaled by $1.25^2 = 1.5625$ or just over one and a half.

(c) The cheese coating would go up from 100g to 156.25g which could be rounded to 160g. So it would not need to be doubled.

page 81 Solution to Activity 29

The text below Figure 45 and Figure 46 itself are additional notes which were not required in response to the activity.

2 General course information

(i) Study advice if you are behind

Please leave time for working on TMA04 and CMA45, as they are weighted double the earlier ones and they revise the whole course. Even if you haven't completed your study of some units or assessments, it is still possible to obtain a pass on the course. Your tutor will be delighted to advise. Please also refer to the study advice given in Stop Press 3. Here are some other comments which may help your planning.

TMA04 includes choices. If you miss out parts of the course your choice will be restricted, but you may well still achieve the threshold of 20% and a pass grade on the course. Remember that you **must** submit TMA04 **on time** in order to pass the course.

CMA45 consists of revision questions on the whole course. You are advised to attempt these questions even if you have not completed the entire course as you may gain valuable marks.

You are strongly advised to consult your tutor, or the telephone help line (see Stop Press 1) if you want to discuss your study strategy for TMA04 and CMA45. Please do this as early as possible and certainly well before the cut-off-dates for the assignments.

Unit 13 consolidates Blocks B and C and contains material relevant to TMA04.

If you miss out some parts of the course, or only skim over them, you might like to go back to them after completing the final assignments. This would be particularly useful if you plan to study MST121 in the future.

(ii) TMA04 and CMA45

Study advice

The purpose of these assignments is for you to draw together the work you have done over the course to give a clear account of your mathematical achievement. The assignments aim to give you the opportunity to demonstrate your understanding of the ideas you have met in the course, and your knowledge and skills developed throughout. Your work on *Unit 16* Sections 1 and 5 should help you to see what you need to, and how to tackle and present it, even if you have not studied all of the preceding units in detail.

If you have a good record of your work (perhaps in your learning file or from TMAs 01-03), doing TMA04 will be much easier. Some students use their notes from several units, to put together their explanation of the concepts in Part 1 and their progress in Part 2.

In Part 1 of TMA04, you have a choice of questions. For Part 2 you have to choose one aspect of the course, from a given list, in which you feel you have made progress and describe your progress from the beginning of the course: this is similar to Question 5 of TMA02.

If you are planning to study MST121 at some stage, you need to be confident with the topics covered in the second half of MU120, as advised later in this document. To demonstrate your understanding of the relevant topics, it is recommended that you make your selection in Part 1 of TMA04 from questions 3, 4, or 5.

May we also take this opportunity to remind you about the University's policy on plagiarism. The University considers plagiarism to be a serious matter. The work that you submit must be your own and not copied from, or provided by, others. In particular, you are reminded that posting TMA questions on the internet is a breach of OU copyright and copying TMA answers from the internet is plagiarism. There is further information about plagiarism in the Assessment Handbook (accessible via your StudentHome web page).'

Submission advice

Please note that there is normally no possibility of an extension on either TMA04 or CMA45 – see the Assignment Booklet for details. You are therefore advised to do the following well ahead of the cut-off dates.

- (i) Read through the entire Assignment Booklet as early as possible. Since the assignments revise the whole course, you can make a start at answering as soon as possible.
- (ii) Contact your tutor for advice if you are struggling to complete the final assignments.
- (iii) Submit TMA04 and CMA45 sufficiently well in advance that they will be delivered absolutely no later than the cut-off date.
- (iv) Ensure that you keep a good copy of the TMA and of the CMA.
- (v) Obtain a certificate of posting for both (but don't use recorded or registered post). Without this evidence, lost, late or missing TMAs cannot be considered for assessment purposes.
- (vi) Ensure that the postage applied covers the weight of each envelope and all its contents.
- (vii) For the TMA, contact your tutor by phone or email a few days after you have sent it, and preferably before the cut-off date, to check that it has been received.

If you submit the CMA on paper, check the Course Record section of your StudentHome page a few days after you have sent it, where there will be an indication of receipt. (Please note that this facility is only available for this final CMA on the course.)

(iv) Course results

Your assignment scores will be combined as indicated on your Study Calendar to give your overall assessment score for the course. In order to be awarded a pass, you must normally achieve a minimum of 40% overall assessment score and at least 20% on TMA04. Please note that the University has the right to set the pass mark at above 40%, if it feels that it is appropriate to do so, though it is highly unlikely to do so. Please note that you

should expect to receive your course result for MU120 in August. You will not, however, receive feedback on TMA04 and CMA45 until September 2010.

3 Other information

(i) Future courses

Over the coming months you will need to make some decisions about which course(s) you wish to take next, so here is a brief summary of the courses available to you which follow-on from MU120. Much more information is provided in Course Choice publications, and there is also advice and information available via the following Open University's websites.

Courses and Qualifications:	www.open.ac.uk/courses
Credit transfer:	www.open.ac.uk/credit-transfer
Planning studies:	www.open.ac.uk/learning/planning-studies

If you are thinking about doing MST121, or any other mathematical or statistical course, you might like to browse around some of the following websites for further information.

For help and further practice with mathematical topics such as algebra and trigonometry:

www.mathcentre.ac.uk

<http://plus.maths.org/>

www.ies.co.jp/math/products/trig/menu

www.algebrahelp.com

www.mathleague.com/help/algebra/algebra.htm

<http://www.sosmath.com/>

For more general guidance on studying mathematics: <http://skillmath.open.ac.uk/>

Mathematics

Using mathematics MST121 enables you to continue your studies in mathematics, provided you have understood the algebra, graphs, functions and trigonometry in Blocks C and D of MU120, and that you follow the preparation advice for MST121. The MST121 Preparatory materials will remind you of these, but do not comprehensively teach them. You do not need to be familiar with using a PC before embarking on MST121. If you are hoping to go on to study MST121, or other mathematics-based courses such as M263, it would be useful for you to revise the algebra from Units 8, 10, 11, 12, 13 and 16 of MU120, and the trigonometry from Units 14, 15 and 16 and Calculator Book Chapters 8 to 15. Remember also the additional exercises in the Resource Books. Further information about MST121 can be found at mathschoices.open.ac.uk.

Using mathematics MST121 and *Exploring mathematics* MS221 can be studied together, provided you have done very well in MU120 and have confidence with the material in Blocks C and D of MU120. You will need to have sufficient study time for 60 points, and you should follow the preparation advice for MST121. Although MST121 and MS221 are designed so that they may be taken together, students who have never encountered any of the content of MST121 and MS221 before may find it difficult to assimilate all the material within that time scale. Such students may be better advised to consider taking MST121 and MS221 consecutively to give themselves time to consolidate new mathematical ideas. Another alternative is to start MST121 in October, and if you feel sufficiently confident, to start MS221 the following February, at which point you will be about two-thirds of the way through MST121.

Statistics

Analysing data M248 (excluded combination with BM240 – see below) A 30-point course which follows on from Blocks A and C of MU120, intended for those who wish to take further statistics courses. Before starting it would be helpful to revise Block A of MU120, and the algebra and functions from Units 8, 10, 11, 12, 13 and 16.

Computing & ICT

Data, computing and information M150 This 30-point course relates to the calculator programming aspects of MU120. You need to be familiar with using a computer and the internet before starting the course.

Information and communication technologies at work T121

Networked living: exploring information and communication technologies T175

Teaching

The following courses are available.

Title	Course	Points	Presentation
<i>Developing mathematical thinking at KS3</i> (one week residential school course takes place in July)	MEXR624	10	June
<i>Teaching mathematical thinking at KS3</i>	ME624	20	October
<i>Developing algebraic thinking</i>	ME625	30	April
<i>Developing statistical thinking</i>	ME626	30	April
<i>Developing geometric thinking</i>	ME627	30	October
<i>Researching mathematics learning</i> (Postgraduate)	ME825	60	October

Another level 1 course, such as:

Engineering the future T173

Exploring science S104

Introducing astronomy S194

An introduction to Business Studies B120

Working and learning BU130

You and your money DB123

Introducing the social sciences, DD132

There are also a number of short (10-point) level 1 courses covering aspects of IT and computing, technology and science. In particular, you may be interested in *The Story of Maths* TM190, an online course which follows the BBC Four programme of the same name.

(ii) Calculator on future courses

If you intend to study further courses in mathematics or statistics you might be interested in the following three books, which are optional to your studies and are available from Oxford Educational Supplies at studentcalculators.co.uk/acatalog/index.html. Although the calculator is not an integral part of other courses in mathematics and statistics, it is very likely that you will continue to find it to be a very useful tool.

Calculator Calculus by Barrie Galpin and Alan Graham (ISBN 0 9541020 2 9) uses the TI-83/TI-84 plus calculator to explore numerical approaches to the algebraic material covered in Block C of MST121. Price £9.95 approx.

Calculator Graphing by Barrie Galpin and Alan Graham (ISBN 0 9541020 4 5) explores the extensive range of graphing facilities on the TI-83/TI84, of which some are introduced in MU120 and others support ideas in MST121 or other courses. Price £11.95 approx.

Calculator Statistics by Barrie Galpin and Alan Graham (ISBN 0 9541020 1 0) explores some of the ideas in Block D of MST121 and other material including 'tests of significance' using the TI-83/TI-84 calculator. Price £9.95 approx.

(iii) Qualifications

For information about particular qualifications, please contact the Awards and Ceremonies Centre, PO Box 123, The Open University, Milton Keynes MK7 6DQ, telephone 01908 653003, or see www.open.ac.uk/qualifications.

Certificates

The Certificate in Mathematics is awarded upon successful completion of any two of MU120, MST121 and MS221.

The Certificate in Computing and mathematics is awarded upon successful completion of M150, *Data, computing and information*, and either MU120 or MST121.

If you want the credit from MU120 to be counted towards one of the above Certificates, you must ensure the course is linked to it. You might have already done this as part of the course reservation or registration processes. You can do this any time by using a transaction that you will find located in your StudentHome page at www.open.ac.uk/students. Alternatively you can contact the Awards and Ceremonies Centre on 01908 653003 and ask one of our Advisers to do it for you; or send your request in writing to the Awards and Ceremonies Centre at The Open University, Walton Hall, PO Box 123, Milton Keynes, MK7 6DQ.

Degrees –

MU120 may specifically be counted towards the following degrees:

BA Business Studies	BSc Computing
BSc Leadership and management	Foundation Degree in Information and Communication Technologies
BSc Physical Science	BSc Computing with Psychological Studies

It may also be counted towards the 'free choice' element of many other qualifications, including named degrees in mathematics and statistics.

MST121 should be studied at the start of any named degree with 'mathematics' in its title.

In particular, MST121 is the compulsory Level 1 course in the following degrees:

BA / BSc Mathematics	BA / BSc Mathematics and Statistics
BA / BSc Computing and Statistics	BA / BSc Economics and Mathematical Sciences
BA / BSc Mathematics and its Learning	

MST121 may specifically be counted towards the following degrees:

BA / BSc Computing and Mathematical Sciences	Foundation Degree in Information and Communication Technologies
BSc (Hons) Information and Communication Technologies	BSc Computing
BSc Physical Science	BSc Computing with Psychological Studies
BA Business Studies	

It may also be counted towards the 'free choice' element of many other qualifications.

May we take this opportunity to wish you well with TMA04 and CMA45 and in your future studies. We hope that you have enjoyed MU120!